

What is claimed is:

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1. A pneumatic tire comprising a radial carcass extending between a pair of bead cores embedded in the respective bead portions to reinforce a pair of sidewall portions and a tread portion and comprised of one or more rubberized cord plies, a belt arranged on an outer peripheral surface of the carcass to reinforce the tread portion, a bead filler rubber taperingly extending from a position just above the bead core toward an end of the tread portion, and a rubber reinforcing layer arranged at an inner surface side of an innermost carcass ply from a position near to the bead core in the bead portion to a position near to the end of the tread portion and having substantially a crescent shape at section thereof, in which at least one rubber protection sheet being relatively soft is disposed between the bead filler rubber and the carcass ply surrounding it and/or between the rubber reinforcing layer and the carcass ply nearest thereto.

2. A pneumatic tire according to claim 1, wherein at least one ply of the carcass is a turnup ply wound around the bead core from an inside of the tire toward an outside thereof, which consists of a toroidally extending main body and a turnup portion.

3. A pneumatic tire according to claim 1, wherein in a radial section of a tire-rim assembly when the tire is mounted onto a recommended rim and inflated under a pressure corresponding to 15% of a maximum air pressure, the rubber protection sheet is existent over both sides of a straight line drawn from a curvature center of a flange of the recommended rim at an inclination angle of 60° outwardly in a radial direction of the tire with respect to a line segment drawn from the curvature center in parallel to a rotating axial line of the tire toward the inside of the tire.

4. A pneumatic tire according to claim 1, wherein the rubber protection sheet is existent between line segments in parallel to the rotating axial

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line of the tire respectively passing through an outer end of the bead filler rubber in the radial direction of the tire and an inner end of the rubber reinforcing layer in the radial direction of the tire.

5. A pneumatic tire according to claim 2, wherein when the rubber protection sheet is disposed along the turnup portion of the carcass ply between the turnup portion and the bead filler rubber, a height of an outer end of the rubber protection sheet in the radial direction of the tire as measured from an outermost end of the bead core in the radial direction of the tire is not more than two times a height of an intersecting point between the straight line drawn from a curvature center of a flange of the recommended rim at an inclination angle of  $60^\circ$  outwardly in a radial direction of the tire with respect to a line segment drawn from the curvature center in parallel to a rotating axial line of the tire toward the inside of the tire and an outer surface of an outermost carcass ply as measured by the above same method.

6. A pneumatic tire according to claim 1, wherein the rubber protection sheet has 50% modulus of 0.30-0.84 times that of the rubber reinforcing rubber.

7. A pneumatic tire according to claim 1, wherein the rubber protection sheet has  $\tan \delta$  at  $25^\circ\text{C}$  of 0.04-0.11.

8. A pneumatic tire according to claim 1, wherein the rubber protection sheet has a thickness of 0.4-4.0 mm.

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